

## Abstract

Fuel-, ballast-, utility- or freight-tanks of ships are  
5 frequently equipped with an open sounding tube, which  
serves for the mechanical sounding of the fill level of  
the medium in the tank. In the case of fill level  
measurements in the sounding tube with measuring  
devices, which work with microwave signals, it has been  
10 found that the wanted signals can be superimposed in a  
lower region of the sounding tube by strong disturbance  
signals, which come from the tank floor.

In order to be able to determine reliably the fill  
15 level of the medium reliably in a tank equipped with  
such a sounding tube (12) also by means of a microwave  
fill level measuring device, the invention provides an  
arrangement which includes a deflecting device (24) for  
deflecting the microwave signals in an end region (22)  
20 of the sounding tube. So that it will still be  
possible to perform sounding measurements in such tank  
using a mechanical sounding device, a microwave-  
transmissive support (34) is provided for the plumb  
device in the region of the deflecting device (24).

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(Fig.

5)

## Reference Characters

	10	arrangement
5	12	sounding tube
	14	upper end of the sounding tube
	16	adapter for fill level measuring device
	18	microwave fill level measuring device
	20	Y-adapter
10	22	lower end of sounding tube
	24	deflecting plate (first kind)
	26	angular deflecting plate (second kind)
	28	holder for angular deflecting plate
	30	clamp
15	32	support, with holes
	34	window
	36	rim for holding window
	50	tank
	52	tank roof
20	54	tank floor
	56	signal path
	58	medium